

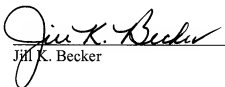
**RESPONSE UNDER 37 C.F.R. 1.116  
EXPEDITED PROCEDURE  
EXAMINING GROUP 2195**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Uceda-Sosa et al. Confirmation No.: 9330  
Serial No.: 09/583,797 Group Art Unit: 2195  
Filed: 05/31/2000 Examiner: Lilian Vo  
Title: METHOD, SYSTEM AND PROGRAM PRODUCTS FOR EFFICIENTLY  
LOCKING RESOURCES OF A GLOBAL DATA REPOSITORY

**CERTIFICATE OF ELECTRONIC TRANSMISSION**

I hereby certify that this correspondence is being transmitted electronically to:  
Examiner Lilian Vo, Group Art Unit 2195, United States Patent and  
Trademark Office, Alexandria, VA 22313-1450, on August 7, 2006.

  
Jill K. Becker

Date of Signature: August 7, 2006.

To: Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Pre-Appeal Brief Request for Review**

Dear Sir:

This paper is co-filed with a Notice of Appeal from the rejection mailed April 6, 2006, in connection with the above-designated application. By this paper, applicants request pre-appeal brief review of the noted rejection received for the above-identified application. No amendments are being filed with this request.

### **Remarks**

Applicants respectfully submit that the Final Office Action, and in particular, the asserted obviousness rejection of the independent claims based on Lehman ("Efficient Locking for Concurrent Operations on B-Trees; hereinafter Lehman") fails to state a *prima facie* case of obviousness against applicants' recited invention.

Applicants respectfully submit that a *prima facie* case of obviousness is not stated in the Final Office Action in connection with their independent claims for at least the reason that one or more aspects of applicants' independent claims are not fully addressed in the Final Office Action or Advisory Action and are missing from the cited reference, as described below.

In one aspect, applicants' invention is directed to the efficient locking of resources of a global data repository. A locking facility is provided that enables concurrent access to a complex data structure, while minimizing the lock acquisition necessary to access a particular resource of that complex data structure. As one example, the complex data structure is a data repository that includes a plurality of resources (e.g., tables, directories). The repository has a hierarchical topology, and there are various relationships among the resources of the repository and the locks of the repository. As examples, the relationships of the resources include containment-based relationships and reference-based relationships.

The type of locking relationship that exists depends on the particular relationship between the resources. For example, if the relationship between the resources is a containment-based relationship, then the locking acquisition is referred to as chained locking. On the other hand, if the relationship is a reference-based relationship, then the locking acquisition is referred to as a reference-based locking strategy.

To minimize the locking needed, the locking strategy selected for a particular resource depends on the relationship between the resource and at least one other resource. For example, in applicants' independent claim 1, applicants recite locking at least one resource of the one resource and the another resource using one type of locking strategy, in response to the determining indicating the relationship is a containment-based relationship; and locking at least one resource of the one resource and the another resource using another type of locking strategy,

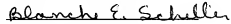
in response to the determining indicating that the relationship is a reference-based relationship. Thus, in one aspect of applicants' claimed invention, a determination is made as to whether the relationship between resources is a containment-based or a reference-based relationship. Then, in response to the determining indicating that the relationship is a containment-based relationship, at least one resource is locked using one type of locking strategy. Further, in response to the determining indicating the relationship is a reference-based relationship, at least one resource is locked using another type of locking strategy. It is at least these claimed features, as recited in the independent claims, that are not described, taught or suggested in Lehman and are not fully addressed in the Final Office Action.

For instance, in the Final Office Action and the Advisory Action, it is stated, “[L]ehman discloses that locks are placed by the inserter according to a well-ordering on the nodes (page 663, paragraphs 11-21 and page 651, paragraph 8). In other words, different ways of locking are placed on the nodes according to the order of the nodes (relationship).” Applicants respectfully submit that this argument fails to address what is explicitly being claimed by applicants. That is, applicants are specifically claiming the particular types of relationships (e.g., reference-based and containment-based) and locking based on those particular types of relationships. The Final Office Action merely states that there is a relationship, but does not address the fact that applicants are determining particular types of relationships and locking based on those relationships. Applicants are not simply claiming different locking strategies can be performed, but are explicitly claiming locking using one strategy, when the determined relationship is reference-based, and locking using another strategy, when the determined relationship is containment-based. Locking based on these specific relationships is not fully addressed in the Final Office Action and is not taught or suggested in Lehman.

Since the Final Office Action and the Advisory Action fail to fully address these particular types of relationships and locking based on a determination of these particular types of relationships, applicants respectfully submit that a *prima facie* case of obviousness has not been satisfied.

For at least the above reasons, applicants respectfully submit that clear errors have been made in the Final Office Action with respect to the rejection of the subject matter recited in their independent claims, and as such, withdrawal of the rejection to all pending claims is respectfully requested.

Respectfully submitted,



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Dated: August 7, 2006

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